

ABSTRACT

The invention relates to an apparatus for the determination of loadings on fiber composite components (1), especially of vehicle and aircraft parts, whereby the components (1) are provided with a prescribed number of sensor elements (3), for the determination of strains. The sensor elements (3) are connected with an evaluating apparatus (4), which is especially embodied for the monitoring and also for the determination of loadings that tend to cause damage. The apparatus is characterized in that the sensor elements are embodied as strain gages (3). In that regard, the strain gages (3) are preferably integrated into the fiber composite component (1) in such a manner so that the measuring grids (5) thereof are laid between the individual fiber layers (2) and are guided out of the fiber composite component (1) ready for connection via special connecting pins (8). Via these connecting pins (8) the individual strain gages (3) are connectable to the respective associated evaluating apparatus (4) via loose cable connections (12).